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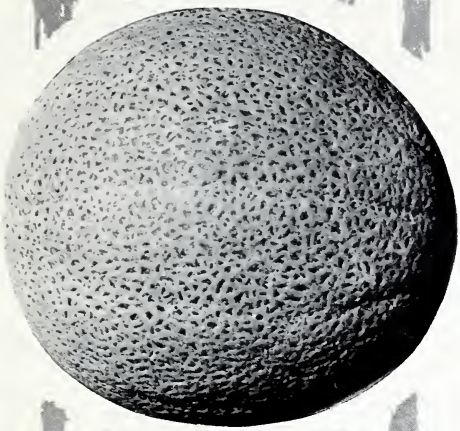

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MUSKMELONS FOR THE GARDEN

U.S. DEPARTMENT OF AGRICULTURE

LEAFLET NO. 509

MUSKMELONS FOR THE GARDEN

PREPARED BY CROPS RESEARCH DIVISION, AGRICULTURAL RESEARCH SERVICE

Muskmelons are hot-weather plants. They grow best on well-drained sandy loam or silt loam soils in climates that are hot and dry.

Leaf diseases may cause severe damage in humid climates. However, muskmelon varieties are available that can be grown successfully on any good garden soil wherever the growing season is long enough—140 days or more without frost, and 85 days or more of warm weather. The number of days required depends on the variety of melon.

VARIETIES

Choose muskmelon varieties that are adapted to your area. For best results, follow variety recommendations of your county agricultural agent or your State agricultural experiment station.

Some favorite muskmelon varieties—and the areas where they are grown—are as follows:

Southern States.—Edisto, Rio Gold, and Rio Sweet are resistant to downy and powdery mildews, which are prevalent in the South. Smith's Perfect is resistant to downy mildew. Though Hearts of Gold, Hale's Best, and Hale's Jumbo are not resistant to downy or powdery mildew, they are high-quality melons when disease-free.

Northeastern and East North Central States.—Iroquois, Delicious 51, Honey Rock, Spartan Rock, and Harvest Queen are fusarium-resistant varieties. Pennsweet, Pride of Wisconsin, and Rocky Ford are well-adapted, good-quality melons.

Arizona and California.—Varieties well adapted to these States are PMR (powdery mildew resistant) 5 and PMR 6, which are highly resistant to powdery mildew and PMR 45 and PMR 450, which are somewhat resistant.

Irrigated areas of West and Southwest.—Casaba, Persian, Crenshaw, and Honey Dew melons are adapted primarily to long-season irrigated areas. They may be grown in other areas if the warm growing season is long enough—at least 120 days—but they are very susceptible to diseases aggravated by rain, and do not reach their best quality in rainy areas.

LIME AND FERTILIZER REQUIREMENTS

Needs for lime and fertilizer vary so widely, even over small areas, that specific recommendations cannot be given. Have your soil tested for lime and fertilizer needs before planting. For further information about soil testing, consult your county agricultural agent or your State agricultural experiment station.

Muskmelons will not grow well on strongly acid soils. These soils should be limed just heavily enough to change them to very slightly acid.

Commercial fertilizers are almost always needed for growing muskmelons successfully. A soil test will tell you how much fertilizer to apply. A good general garden fertilizer for your locality is usually satisfactory.

A typical program of fertilizer application is as follows:

Apply ½ to 1 cup of mixed fertilizer (5–10–5, 5–10–10, or 4–8–8) to each hill three times during the growing season.

- Work the first application into the soil at planting time.
- Make the second application when the runners are 12 to 18 inches long. Apply the fertilizer 6 to 8 inches away, along each side of the hill.
- Make the third application in bands after the first melons set. Make the bands 12 to 18 inches long and place them 6 to 8 inches away from the hill.

For best results in growing muskmelons—

- Buy seed from a reputable source.
- Select varieties adapted to your area.
- Prepare the soil at least 30 days in advance of planting, if feasible.
- Plant after all danger of frost is past or use plant covers over early seeded hills.
- Keep the planting weed-free.
- Irrigate when needed.
- Protect the planting against diseases and insect pests.

CULTURE

Preparing the Soil

Prepare the soil early enough for it to settle thoroughly by planting time. If you must turn under sod or other vegetation, do so in the fall to allow the turned-under material time to decay, unless the soil is subject to erosion during the winter. If you have no vegetation to turn under, then plow, spade, or power-till the soil at least 1 month prior to planting.

Unless the muskmelon crop is to be grown on raised beds, the soil needs no further preparation until planting time. If the crop is to be grown on raised beds, form the beds about 1 month before planting.

Muskmelons usually are not grown on raised beds unless they are to be furrow irrigated. However, where soil is poorly drained and heavy rains occur frequently during the growing season, it is best to bed the soil before planting. Form the beds 5 to 7 feet from center to center and with drainage furrows between them.

Irrigated early-spring muskmelons usually are grown on beds that are laid out so they run east and west. Make these beds 5 to 7 feet from center to center and 2 to 2½ feet high from the peak to the bottom of the intervening furrow.

For irrigated summer crops, bed the soil only slightly.

Just before planting, go over the soil lightly with a rotary tiller or smooth the surface with a rake.

Planting

If you plan to plant muskmelons in the open—without covers—delay seeding until after the frost-free date—about the time the leaves of deciduous oaks are full grown. If, to get an early start, you plan to use plant covers, plant no sooner than 1 month before the frost-free date. Your county agricultural agent or State agricultural experiment station can tell you the average frost-free date for your locality.

Plant covers, made from glassine, paper, or plastic, are available from seed dealers. The covers are placed over the seeded hill and are left in place, except as ventilation may be necessary, until danger of frost is past.

When growing an early irrigated crop, space the hills 18 to 24 inches apart just above the irrigation waterline on the south side of the bed. Soil on the south side warms quickly and tender plants growing there are protected from cold winds.

For irrigated summer crops or nonirrigated crops, space the hills 5 to 7 feet apart each way.

Using a spading fork or a hoe, pulverize the soil in the center of each hill over an area about 1 foot in diameter. Mix fertilizer in this pulverized soil. Smooth the fertilized area and cover it lightly with field soil. Then place six or eight seeds in each hill. If you are seeding before the frost-free date, keep the seeds within an area that can be roofed with a plant cover.

Cover the seeds with about half an inch of soil and firm the soil over the seeds with the back of the hoe or with your hand.

Thinning

Thin the seedlings twice. When one or two true leaves have appeared between the seed leaves, thin the plants to four per hill. One or two weeks later thin again to two widely spaced plants per hill.

Cultivating

Cultivate only enough to control weeds and to break soil crusts after heavy rains. Cultivate lightly; muskmelons are shallow rooted and deep cultivation may injure the roots. When cultivating, try to avoid moving the vines.

Irrigating

A good rule to follow for irrigating muskmelons is this: Do not irrigate unless the plants need it; then soak the soil thoroughly.

Begin by soaking the soil thoroughly before planting. Plant as soon as the soil dries sufficiently.

Later, irrigate when plants first

tend to wilt during the day or when they cease vigorous growth.

Though rainfall in the East usually is sufficient for supplying necessary soil moisture, irrigation may be needed during periods of drought. Irrigate every 10 to 12 days during a drought.

Try to irrigate without wetting the foliage; wet foliage is susceptible to leaf spot diseases. For best results, irrigate with a soaker hose or by running water through the furrows between the hills.

HARVESTING

When muskmelons are ripe, the skin turns yellow and the blossom end yields slightly when pressed. With experience you can soon learn to judge when the melons are ready for picking.

If muskmelons are picked too soon they do not develop their maximum sugar content. If they are allowed to stay on the vine too long, they lose sugar and become soft.

The first melons ripen slowly; as the season advances, ripening is more rapid. Pick every other day for the first week of harvest. During the second week, pick every day. Toward the end of the season, the oftener you can pick, the better.

Honey Dews, Crenshaws, Casabas, and Persians must be cut from the vines. When other kinds of muskmelons are ripe they will separate easily from the vines if you press on the stems lightly or if you lift the melons slightly off of the ground.

DISEASES AND INSECTS

Damage from many diseases can be controlled by careful culture:

- Select disease-resistant varieties.
- Buy high-quality, disease-free seed.
- Plant where muskmelons, watermelons, squashes, cucumbers, or pumpkins have not been grown for at least 3 years.
- Keep the planting free of weeds.
- Destroy all wilting or dying plants.

Most of the serious diseases that are not controlled by cultural means can be controlled by proper application of fungicides.

To prevent damping-off of the seedlings, treat the seed with thiram, captan, or Semesan [1] before planting. Follow these directions for treating the quantity of seed in a packet: (1) Tear off the corner of the seed packet. (2) Dip the small blade of a penknife into the dust. (3) Lift out as much dust as will go on the tip of the blade. (4) Insert dust through the hole in the packet. (5) Fold down corner of packet. (6) Shake the seed thoroughly.

The directions on the fungicide package will tell you how much dust to use for treating a large quantity of seed. Place the dust and seed in a closed container. Shake and

[1] Trade names are used in this publication solely for the purpose of providing specific information. Mention of a trade name does not constitute a guarantee or warranty of the product named and does not signify that this product is approved to the exclusion of other comparable products.

turn the container end over end for 1 to 2 minutes.

After the plants come up, begin a program of preventive spraying. Use zineb, a mixture of ziram and a fixed copper compound, or a mixture of captan and a fixed copper compound. Prepare the spray as directed on the fungicide package.

Begin spraying with fungicide 6 to 8 weeks after planting. Apply the spray every 10 days during dry weather or every 7 days during wet weather. Continue spraying until a week before harvest begins.

For information regarding identification and control of insects affecting muskmelons in the garden, see Home and Garden Bulletin 46, "Insects and Diseases of Vegetables in the Home Garden." This publication is available from U.S. Department of Agriculture, Washington, D.C. 20250. Send your request on a postal card.

PRECAUTIONS

Some fungicides are poisonous to man and animals. Use fungicides only when needed and handle them with care. Follow the directions and heed all precautions on the container label.

Keep fungicides in closed, well-labeled containers in a dry place. Store them where they will not contaminate food or feed and where children and pets cannot reach them.

Avoid repeated or prolonged contact of fungicides with the skin. Avoid inhalation of fungicide dusts.

Avoid spilling fungicides on your skin, and keep them out of the eyes, nose, and mouth.

To protect fish and wildlife, be careful not to contaminate streams, lakes, or ponds with fungicides. Do not clean spraying equipment or dump excess spray material near such water. Surplus fungicides should be buried 24 inches deep in the soil where they will not contaminate wells or streams.

Empty containers are particularly hazardous. Burn empty bags and cardboard containers in the open or bury them. Crush and bury bottles or cans.

Semesan can be absorbed through the skin. After working with this material, wash all exposed parts of the body with soap and water. If Semesan is spilled on your clothing, change clothing.

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